

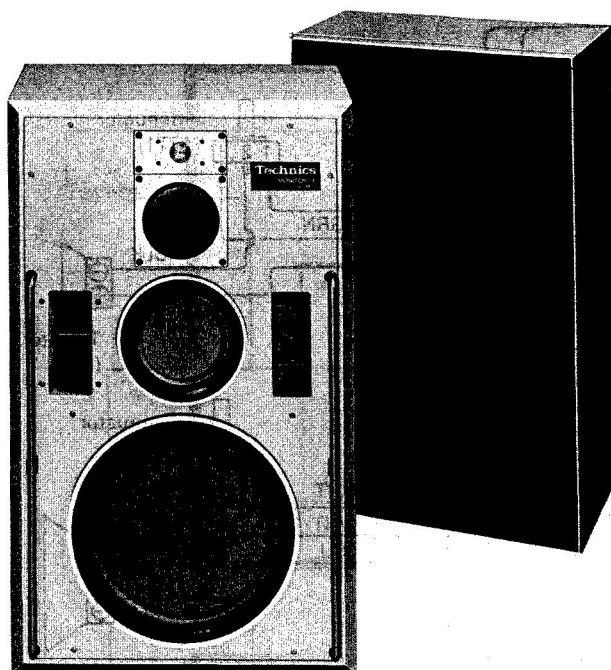
Service Manual

MONITOR 1

Honeycomb Disc Speaker System

SB-M1

[E] [EB] [Ei] [EG]
[EK] [EH] [EF] [XA]



*This model has for Right and Left type.

Areas

- * [E] is available in Scandinavia and Switzerland.
- * [EB] is available in Belgium.
- * [Ei] is available in Italy.
- * [EG] is available in F.R. Germany.
- * [EK] is available in United Kingdom.
- * [EH] is available in Holland.
- * [EF] is available in France.
- * [XA] is available in Southeast Asia, Oceania, Africa, Middle Near East and Central South America.

Specifications (Specifications are subject to change without notice for further improvement.)

Type: 4 way 4 speaker system
Speakers: Woofer: 38 cm, Honeycomb Disc
 Mid-low: 22 cm, Honeycomb Disc
 Mid-high: 8 cm, Honeycomb Disc
 Tweeter: 2.8 cm, Honeycomb Disc
Impedance: 6 ohms
Input Power: 350 W, Music
 150 W, DIN

Output Sound
Pressure Level: 94 dB/W (1.0 m)
Crossover Frequency: 280 Hz, 900 Hz, 4,000 Hz
Frequency Range: 25 Hz ~ 38 kHz (~16 dB)
 35 Hz ~ 35 kHz (~10 dB)
Dimensions: 63.0(W) × 105.0(H) × 43.9(D) cm
Weight: 85.5 kg

TECHNISCHE DATEN

(Änderungen der technischen Daten zum Zwecke der Verbesserung vorbehalten.)

Typ: 4-Weg-, 4-Lautsprecher-System
Lautsprecher: Tieftöner: 38 cm, Wabenscheibe
 Mitteltieftöner: 22 cm, Wabenscheibe
 Mittelhochtöner: 8 cm, Wabenscheibe
 Hochtöner: 2,8 cm, Wabenscheibe
Impedanz: 6 ohm
Belastbarkeit: 350 Watt (Musik)
 150 Watt (DIN)
Schalldruckpegel: 94 dB/W (1,0 m)
Übergangsfrequenzen: 280 Hz, 900 Hz, 4000 Hz
Frequenzbereich: 25 Hz ~ 38 kHz (~16 dB)
 35 Hz ~ 35 kHz (~10 dB)
Abmessungen: 63,0(B) × 105,0(H) × 43,9(T) cm
Gewicht: 85,5 kg

SPÉCIFICATIONS

(Ces spécifications peuvent être modifiées sans avertissement préalable, en vue d'une amélioration ultérieure.)

Type: Système à 4 haut-parleurs quadridirectionnels
Haut-parleurs: Graves: 38 cm, Cône en nid d'abeilles
 Intermédiaire faible: 22 cm, Cône en nid d'abeilles
 Intermédiaire élevé: 8 cm, Cône en nid d'abeilles
 Aigües: 2,8 cm, Cône en nid d'abeilles
Impédance: 6 ohms
Puissance d'entrée: 350 W, Musical
 150 W, DIN
Niveau de pression sonore de sortie: 94 dB/W (1,0 m)
Fréquence de transition: 280 Hz, 900 Hz, 4000 Hz
Plage de fréquences: 25 Hz ~ 38 kHz (~16 dB)
 35 Hz ~ 35 kHz (~10 dB)
Dimensions: 63,0(L) × 105,0(H) × 43,9(P) cm
Poids: 85,5 kg

Technics

Matsushita Electric Trading Co., Ltd.
 P.O. Box 288, Central Osaka Japan

■ HOW TO REMOVE THE ATTENUATOR BUTTON (Fig. 1)

1. Use strong fine thread of about 30 cm long.
2. Push in the thread between the plate and knob by using an eyeleteer, tweezers or the like. (Fig. 1-A)
3. Let the thread be caught by the knob and pull it remove the knob. (Fig. 1-B)
4. Remove the nut to detach the attenuator, inserting your hand into the woofer or midrange hole.

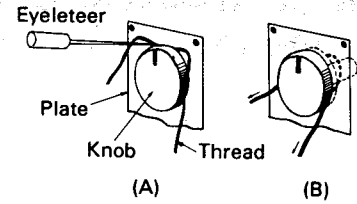


Fig. 1

■ HOW TO REMOVE THE PUNCHING NET (Fig. 2)

1. Loosen the punching net by use of a pointed tool such as an eyeleteer, tweezers, etc.
2. When mounting the punching net, set it with the notch down and fit it in the rubber packing to make it even on the right and left.

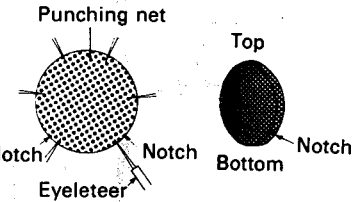


Fig. 2

■ HOW TO REMOVE THE SPEAKER

1. Face the speaker (front) upward.
2. Remove the 4 setscrews of the tweeter, mid-high and mid-low, and 8 setscrews of the woofer to pull out the terminal leads. (For the screw positions, see the development.)
*Carefully remove the speakers because they are rather heavy.
3. Mount the speakers with the terminals down.

	Woofer	Mid-low	Mid-high	Tweeter
⊕ Terminal Lead	Red	Red	Orange	Yellow
⊖ Terminal Lead	White	Green	Blue	Black

■ CONNECTION TO THE AMPLIFIER

1. Before connecting the speaker system to the amplifier, be sure to turn off the amplifier power switch.
2. Impedance of this unit is 6Ω. Check that the load impedance of the speaker terminal of your amplifier is 4~16Ω.
3. Input terminals of this unit are located on the back of the speaker system: ⊕ on the right and ⊖ on the left.
Check the right and left channels (R, L) of the amplifier and polarity (⊕, ⊖) before connection. If the polarity of the speaker is wrong, the sound may be affected with respect to stability, directivity, etc.

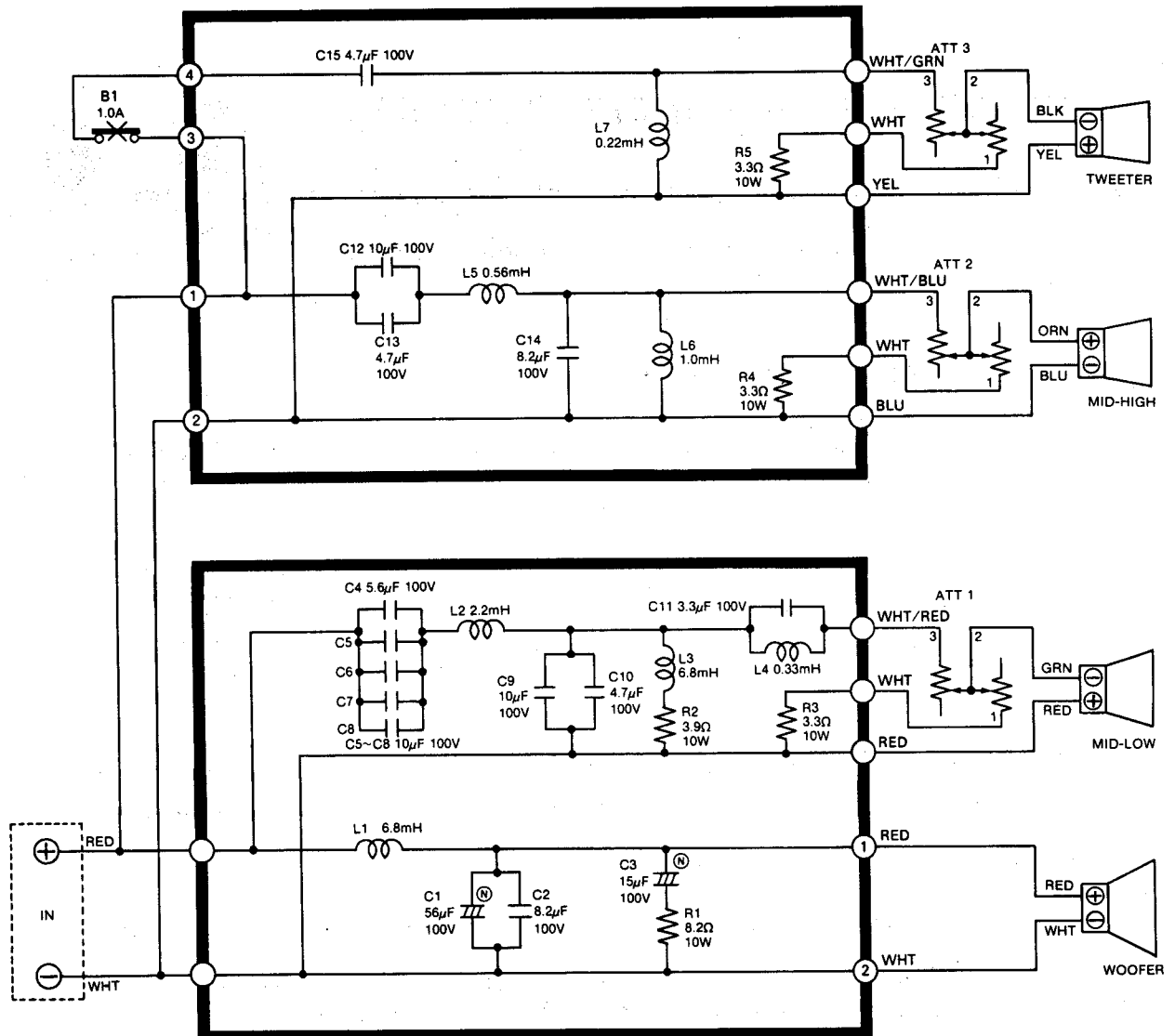
■ HOW TO REMOVE THE HANDLE

Remove the right and left handles at the top by a hexagonal wrench after removing the rear terminal board.

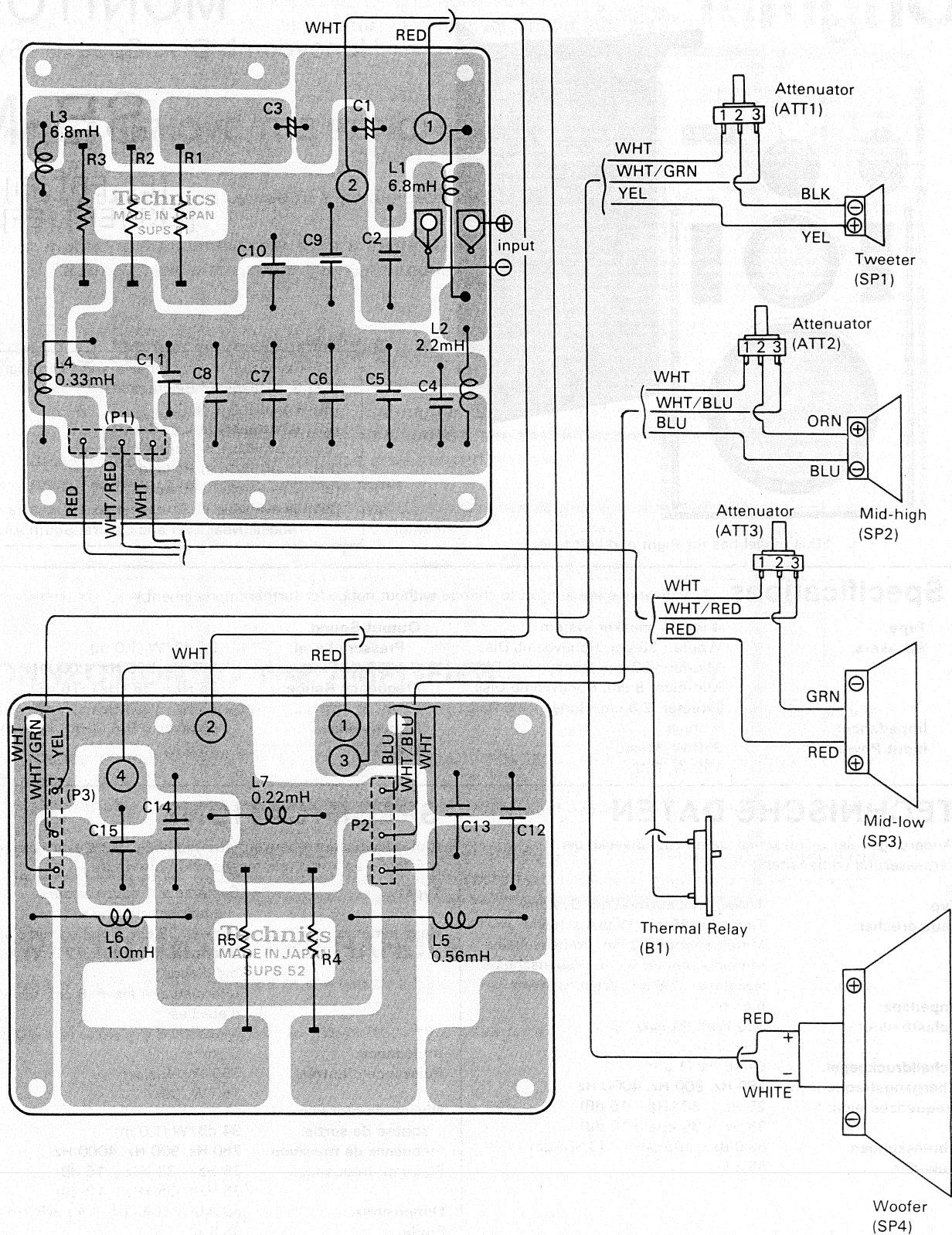
Remove the right and left handles at the bottom by a hexagonal wrench after removing the woofer.

SCHEMATIC DIAGRAM

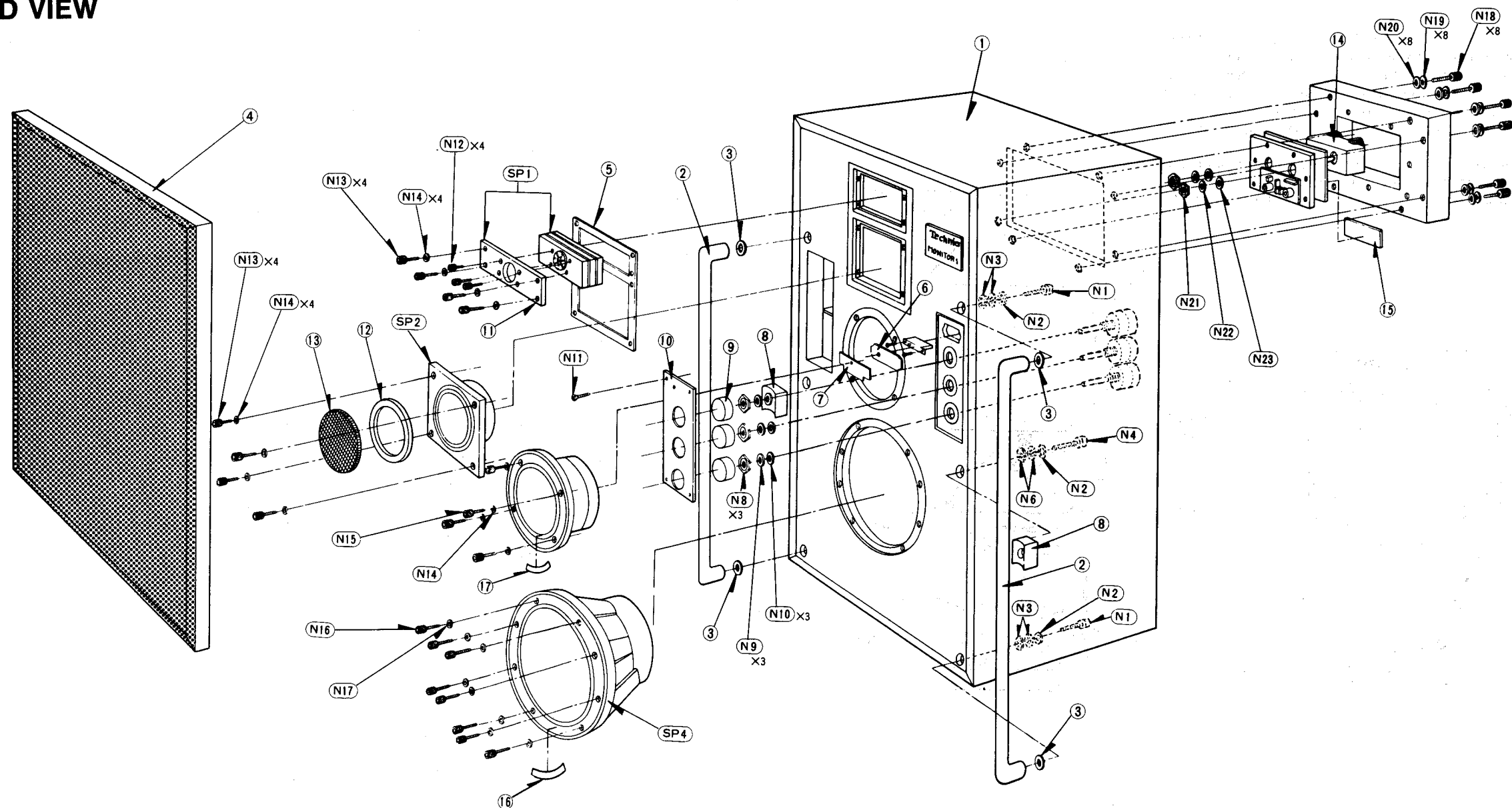
(This schematic diagram may be modified at any time with the development of new technology.)



■ CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM



EXPLODED VIEW



REPLACEMENT PARTS LIST

- Notes:** 1. Part numbers of indicated on most mechanical parts. Please use this part number of parts orders.
2. The "S" mark is service standard parts and may differ from production parts.
*This model has for Right and Left type.

Ref. No.	Part No.	Part Name & Description
SPEAKERS		
SP1	SASS3PHMIT	Speaker, Tweeter (1)
SP2	EAS12PM216S	Speaker, Mid-High (1)
SP3	EAS22PL03S	Speaker, Mid-Low (1)
SP4	EAS38PL32S	Speaker, Woofer (1)
COILS		
L1	SLCD682JU	Coil, 6.8mH (1)
L2	SLCSB222JU	Coil, 22.2mH (1)
L3	SLCSB682JU	Coil, 6.8mH (1)
L4	SLCSB331KU	Coil, 0.33mH (1)
L5	SLCSB561KU	Coil, 0.56mH (1)
L6	SLCSB102JU	Coil, 1.0mH (1)
L7	SLCSC2221KU	Coil, 0.22mH (1)

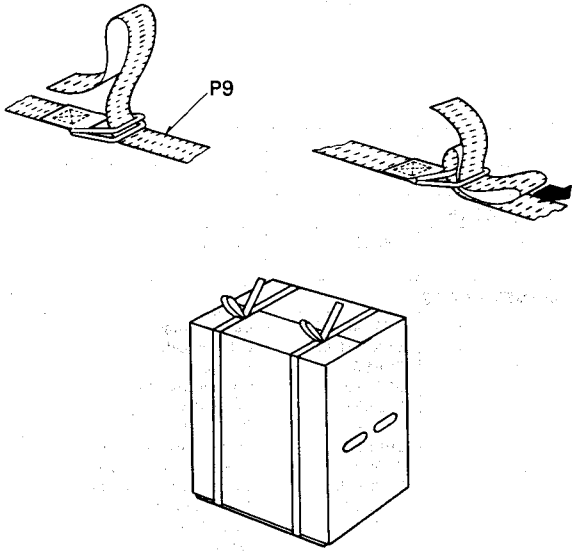
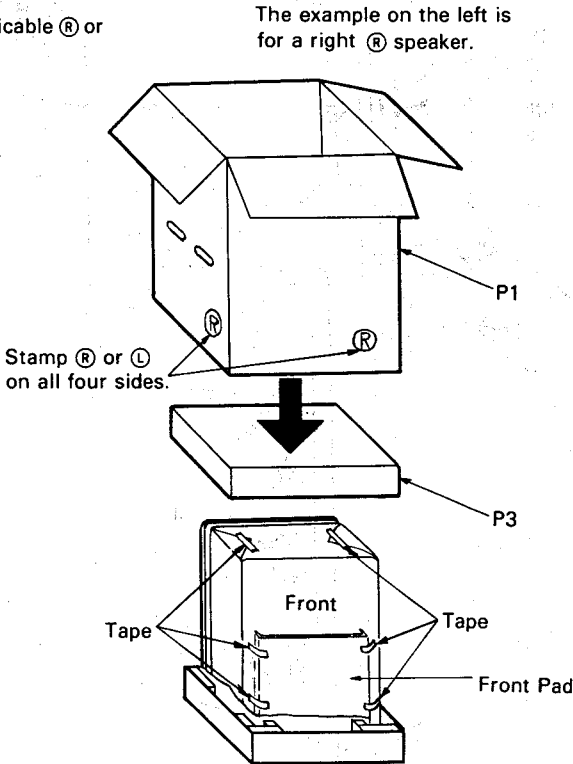
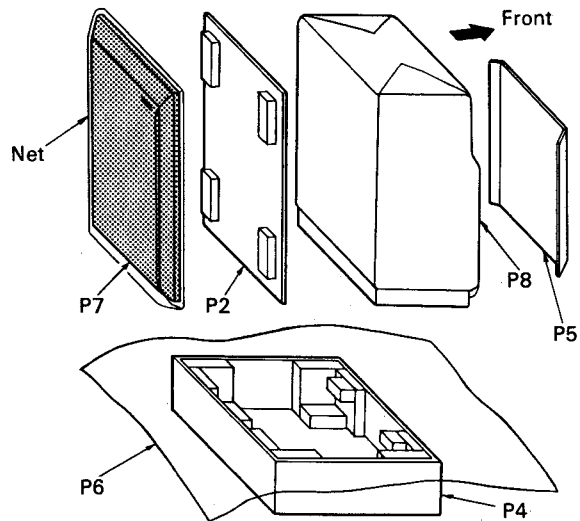
Ref. No.	Part No.	Part Name & Description
CAPACITORS		
C1	ECEA100Y56K	Electrolytic 100V 56 μ F (1)
C2	ECQE1825JN	Polyester 100V 8.2 μ F (1)
C3	ECEA100Y15K	Electrolytic 100V 15 μ F (1)
C4	ECQE1565JN	Polyester 100V 5.6 μ F (1)
C5~C9	ECQE1106JN	Polyester 100V 10 μ F (1)
C10	ECQE1475JN	Polyester 100V 4.7 μ F (1)
C11	ECQE1335JN	Polyester 100V 3.3 μ F (1)
C12	ECQE1106JN	Polyester 100V 10 μ F (1)
C13	ECQE1475JN	Polyester 100V 4.7 μ F (1)
C14	ECQE1825JN	Polyester 100V 8.2 μ F (1)
C15	ECQE1475JN	Polyester 100V 4.7 μ F (1)
RESISTORS		
R1	ERF10ZXK8R2	Resistor, 10W 8.2 Ω (1)
R2	ERF10ZXK3R9	Resistor, 10W 3.9 Ω (1)
R3~5	ERF10ZXK3R3	Resistor, 10W 3.3 Ω (1)
BREAKER		
B1	SSBS10AB02-2	Thermal Relay, 1.0A (1)

Ref. No.	Part No.	Part Name & Description
ATTENUATOR		
ATT1~3	SRES3	Attenuator (1)
CABINET PARTS		
1	SKABM1-RN	Cabinet, Right
2	SKABM1-LN	Cabinet, Left
3	SGES96	Handle
4	SYBS92	Washer, Handle
4	SYBS93	Grille, Right
4	SYBS93	Grille, Left
5	SHRS9050	Spacer, Tweeter, Mid-High
6	SHRS9055	Spacer, Thermal Relay
7	SHRS9053	Spacer, Thermal Relay
8	SGES97	Cushion Rubber
9	SBN931-4	Knob, Attenuator
10	SGKS112	Panel, Attenuator
11	SGWS15	Panel, Tweeter
12	SGES94	Spacer
13	SGMS23	Net, Mid-High
14	SJFS4209	Terminal
15	SGTS135-1	Name Plate
16	SGKS113	Label, Woofer
17	SGKS114	Label, Mid-Low

Ref. No.	Part No.	Part Name & Description
SCREWS AND NUTS		
N1	XVSS8B45FG	Screw, Handle
N2	XWA8B	Washer, Handle
N3	XWG8G24	Washer, Handle
N4	XVSS8B70FG	Screw, Spacer
N5	XWA8B	Washer, Spacer
N6	XWG8G24	Washer, Spacer
N7	XMM27+13	Screw, Thermal Relay
N8	XNGS9CFZ	Nut, Attenuator
N9	XWV9	Washer, Attenuator
N10	XWG9E15FZ	Washer, Attenuator
N11	XMSS35+D16G	Screw, Attenuator Panel
N12	XVSS4B6FG	Screw, Tweeter Panel
N13	XVSS8B30FG	Screw, Tweeter, Mid-High (8)
N14	XWA8BFZ	Washer, Tweeter, Mid-High, Woofer (12)
N15	XVSS6B40FG	Screw, Mid-Low (4)
N16	XVSS8B45FG	Screw, Woofer (8)
N17	XWA8BFZ	Washer, Woofer (8)
N18	XVSS6B60FG	Screw, Terminal (8)
N19	XWA8B	Washer, Terminal (8)
N20	XWG6FZ	Washer, Terminal (8)
N21	XNG5	Nut, Speaker Terminal (2)
N22	XWA5B	Washer, Speaker Terminal (2)
N23	XWG5F16	Washer, Speaker Terminal (2)

PACKING

- 1. Cover the net with protective bag (P7) and the unit with protective bag (P8). Place the net, grille pad (P2) and the unit together as shown in the top illustration.
- 2. On the lower pad (P4), spread the protective sheeting (P6). Place on this the covered unit, grille pad and covered net, and push the whole down until it sits snugly in the lower pad. Insert the front pad (P5) as shown between the unit grips.
- 3. Tape down the loose corners of the unit bag with cellophane tape as shown in the lower illustration.
- 4. Tape the front pad (P5) securely to the unit in four places as shown. Place the upper pad (P3) on top of the unit. Cover the whole with the carton (P1).
- 5. After packing is completed, stamp the carton on all four sides with the applicable ® or ℒ.



Ref. No.	Part No.	Part Name & Description	
PACKING PARTS			
P1 [Other Areas]	SPGS129-1	Carton Box	(1)
P1 [EF]	SPGS129-3	Carton Box	(1)
P1 [XA]	SPGS129-2	Carton Box	(1)
P2	SPSS6159	Pad, Grille	(1)
P3	SPSS6160	Pad, Upper	(1)
P4	SPSS6158	Pad, Under	(1)
P5	SPSS6169-1	Pad, Front	(1)
P6	SPHS6040	Protection Sheet	(1)
P7	SPPS23	Protection Bag, Grille	(1)
P8	SPPS24	Protection Bag, Unit	(1)
P9	SPES8	Belt	(2)
ACCESSORIES			
A1	SQFS195	Instruction Book	(1)
A2	SWXS227	Speaker Cord	(1)